

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of Consumer and Governmental Affairs Bureau Seeks Comment on “Need for Speed” Information for Consumers of Broadband Services	CG Docket 09-158
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COMMENTS OF LEVEL 3 COMMUNICATIONS, LLC

Level 3 Communications, LLC (“Level 3”) submits these comments in response to the Consumer and Governmental Affairs Bureau’s (“Bureau”) Public Notice (“*PN*”) seeking comment on the kinds of information related to performance and commercial terms that will be most useful to consumers when assessing their purchase of broadband services.¹ Level 3 supports the Bureau’s efforts in obtaining information that helps consumers evaluate speed, performance-related information, and commercial terms when making choices among competitive providers of broadband services. It also supports the overall efforts of the Commission to ensure that consumers have the information they need about the communications services they purchase and use.

Level 3 appreciates the questions presented by the Bureau in the *PN*, which attempt to obtain the broadest amount of information possible about how to gauge speed, performance-related data, and commercial terms, and how that data can best be formulated into either rules or industry “best practices” for presenting broadband speed and performance-related data to

¹ See *Consumer and Governmental Affairs Bureau Seeks Comment on “Need for Speed” Information for Consumers of Broadband Services*, Public Notice, CG Docket No. 09-158.

consumers in a truly informative format. Level 3 urges the Bureau to ensure that whatever disclosure requirements or “best practices” result from this process, that broadband providers conspicuously notify current and potential customers whether they are party to underlying commercial agreements through which they could limit capacity, degrade Internet content from independent sources in a manner that could significantly impact the performance of a customer’s service, and potentially increase the cost of obtaining Internet content from independent sources through hidden charges to Internet backbone and content delivery network providers. Disclosure of traffic exchange arrangements for interconnection infrastructure that is or could become congested allows consumers to understand the business practices of a broadband service provider that may limit or restrict access to Internet content by unnecessarily constraining (through onerous commercial terms or an outright refusal to augment capacity when needed) interconnection to the Internet.

DISCUSSION

Level 3 believes that full and appropriate consumer disclosures by broadband providers about relative speed and performance of broadband services not only furthers the Commission’s consumer protection goals, but also may assist the Commission in ensuring that competition for broadband services is protected. The creation of such rules and/or the encouragement of the development of industry “best practices” can aid the Commission in preventing certain broadband providers from engaging in hidden anti-competitive conduct when entering into underlying commercial agreements, such as IP-interconnection arrangements that fail to guarantee adequate port capacity, potentially slowing the broadband providers’ network performance, and increasing the overall costs of access to various sources of Internet content.

Refusal to augment interconnection capacity when traffic warrants it is just as damaging as refusing to interconnect at all. For instance, for any particular connection between a broadband subscriber and another endpoint on the Internet, the packets between the subscriber's computer and the other endpoint will follow the same path until there is a "hard failure," meaning that the connection along that path is taken out of service. The routers within the Internet will not automatically route around congestion. If an interconnection point within the Internet becomes congested, the routers will continue to route packets along that same path. As the interconnection capacity congests, the routers cannot get the packets processed and delivered and will delay packets or, when congestion is more severe, randomly discard packets. These delays and random packet losses affect all services that are passing through that congested point. Most Internet routers are not programmed to evaluate packets to determine which of them should be dropped during periods of congestion. As a result, Internet packets of all types are potentially impacted by congested interconnection, and the experience of end user subscribers is degraded.

The services that are most quickly affected by packet loss are those that rely on real time interaction between two endpoints, such as voice service or live video conferencing. For instance, when congestion occurs on an interconnection port carrying voice traffic, a number of negative service impacts result. Packets used to set up the voice call can be dropped, resulting in call failure, and even if the call is connected, the quality of the voice transmission and playback can be severely impacted. This can make the voice signals unintelligible or even cause the call to disconnect, due to severe congestion and packet loss. Interconnection congestion and packet loss can even impact a broadband subscriber's ability to dial 911 over an interconnected VoIP connection, threatening health and public safety. Interactive web browsing, video and software downloading are also all adversely affected by congested interconnection.

As demonstrated above, if a broadband provider enters into an IP-interconnection agreement with an Internet backbone provider, such as Level 3, which requires payment at rates set by the broadband provider, or that does not require the broadband provider to augment interconnection capacity as traffic increases, severe congestion could result as the Internet backbone provider attempts to deliver traffic to the broadband provider's customers. A broadband provider may be incented to enter into such an arrangement with a backbone provider that delivers content that competes with the broadband provider's own offerings, despite the fact that the arrangement could frustrate the broadband provider's own customer experience and network performance.

The Bureau can ensure that such bad behavior is policed by creating rules or encouraging industry "best practices" that call for disclosure of commercial arrangements that could result in congestion of the delivery of certain traffic. Specifically, a broadband provider should disclose to its customers the following facts:

- Whether the broadband provider charges for interconnection capacity to its local network and, if so, (a) how much it charges, (b) what services it is providing in exchange for those charges, (c) under what circumstances the charges are imposed, (d) whether such charges are assessed against all interconnecting parties, or whether in some instances no charges are assessed, and (e) whether it assesses similar charges for interconnection capacity or local transport capacity for content that is owned by or comes from an entity that is affiliated with the broadband provider;
- Whether the broadband provider has existing interconnection capacity with any other party that is significantly congested (*i.e.*, interconnection capacity that is either at or above 80% utilization at peak), including a description of the locations where such

congestion is occurring, a description of the risk of dropped or failed Internet packet delivery over such interconnection capacity, and the adverse consequences on customer service that may result from such congestion.

If broadband consumers have this type of information available to them, they will be armed with the knowledge necessary to make truly informed decisions about subscribing to a particular broadband provider's Internet access service.

CONCLUSION

Level 3 reiterates its support of the Commission's efforts in this proceeding. It fully understands the importance of protecting consumer's ability to make informed choices when selecting a broadband service provider. Level 3 supports full disclosure of all information impacting a consumer's Internet speed, performance and overall ability to access the information of their choosing over the Internet. It therefore urges the Commission to encourage the development of disclosures that inform a consumer when a broadband service provider has entered into an arrangement through which it could limit capacity, and/or degrade competing content in a manner that could impact the performance of that consumer's service or potentially increase the cost of accessing Internet content of that consumer's choice.

Respectfully submitted,

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